

Serial No.: 10/728,439

Confirmation No.: 9418

Filed: 5 December 2003

For: POLYMER COMPOSITIONS WITH BIOACTIVE AGENT, MEDICAL ARTICLES, AND METHODS

Amendments to the Claims

This listing of claims replaces all prior versions, and listings, of claims in the above-identified application:

Listing of Claims

1-93. (Cancelled)

94. (Currently Amended) A polymer composition comprising:

a continuous hydrophobic phase comprising a mixture comprising:

 a hydrophobic liquid comprising mineral oil; and

 a hydrophobic thermoplastic elastomeric polymer;

absorbent hydrophilic microparticles dispersed within the hydrophobic liquid, wherein the hydrophilic microparticles comprise a crosslinked carboxylic acid-containing organic polymer; and

 a bioactive agent having a particle size less than one micron dispersed in the hydrophilic microparticles, wherein the bioactive agent is selected from the group consisting of a metal oxide of silver, a metal oxide of copper, a metal oxide of zinc, and combinations thereof;

 wherein the polymer composition is nonadherent and contains less than 1 wt% water based on the total weight of the composition.

95. (Cancelled)

96. (Previously Presented) The polymer composition of claim 94 wherein the absorbent hydrophilic microparticles have an average particle size of 10 microns or less, when in a nonhydrated form.

97. (Previously Presented) The polymer composition of claim 96 wherein the absorbent hydrophilic microparticles have an average particle size of 1 micron or less, when in a nonhydrated form.

98. (Previously Presented) The polymer composition of claim 97 wherein the absorbent hydrophilic microparticles have an average particle size of 0.5 micron to 1 micron when in a nonhydrated form.

99. (Previously Presented) The polymer composition of claim 96 further comprising secondary absorbent particles having an average particle size of greater than 10 microns when in a nonhydrated form.

100. (Previously Presented) The polymer composition of claim 99 wherein the secondary absorbent particles having an average particle size of greater than 10 microns are superabsorbent.

101. (Previously Presented) The polymer composition of claim 94 wherein the microparticles are superabsorbent.

102. (Previously Presented) The polymer composition of claim 94 wherein the carboxylic acid-containing organic polymer comprises a copolymer of sodium acrylate and acrylic acid.

103. (Previously Presented) The polymer composition of claim 94 wherein the thermoplastic elastomeric polymer is selected from the group consisting of a styrene-isoprene block copolymer, a styrene-(ethylene/butylene) block copolymer, a styrene-(ethylene/propylene) block copolymer, a styrene-isoprene-styrene block copolymer, a styrene-butadiene block copolymer, a

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polyetherester, a poly-alpha-olefin based thermoplastic elastomeric polymer, an ethylene-1-octene copolymer, and combinations thereof.

104. (Previously Presented) The polymer composition of claim 103 wherein the thermoplastic elastomeric polymer is selected from the group consisting of styrene-isoprene-styrene (SIS), styrene-butadiene-styrene (SBS), styrene-ethylene-propylene-styrene (SEPS), styrene-ethylene-butylene-styrene (SEBS), and combinations thereof.

105. (Previously Presented) The polymer composition of claim 94 further comprising an additive selected from the group consisting of a plasticizer, a crosslinking agent, a stabilizer, an extruding aid, a filler, a pigment, a dye, a swelling agent, a foaming agent, a chain transfer agent, and combinations thereof.

106. (Previously Presented) The polymer composition of claim 94 wherein the microparticles are present in an amount of 1 wt-% to 60 wt-%, based on the total weight of the polymer composition.

107. (Previously Presented) The polymer composition of claim 94 wherein the composition is stable.

108. (Previously Presented) The polymer composition of claim 94 wherein the composition is in the form of a hydrocolloid.

109. (Previously Presented) The polymer composition of claim 94 further comprising a swelling agent.

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110. (Previously Presented) The polymer composition of claim 94 wherein the bioactive agent is silver oxide.

111. (Previously Presented) A medical article comprising the polymer composition of claim 94.

112. (Previously Presented) A polymer composition comprising:
a continuous hydrophobic phase comprising a mixture comprising:
mineral oil; and
a hydrophobic thermoplastic elastomeric polymer selected from the group consisting of styrene-isoprene-styrene (SIS), styrene-butadiene-styrene (SBS), styrene-ethylene-propylene-styrene (SEPS), styrene-ethylene-butylene-styrene (SEBS), and combinations thereof;
absorbent hydrophilic microparticles dispersed within the mineral oil, wherein the hydrophilic microparticles comprise a crosslinked carboxylic acid-containing organic polymer; and
a bioactive agent having a particle size less than one micron dispersed in the hydrophilic microparticles, wherein the bioactive agent is selected from the group consisting of a metal oxide of silver, a metal oxide of copper, a metal oxide of zinc, and combinations thereof;
wherein the polymer composition is nonadherent and contains less than 1 wt% water based on the total weight of the composition.

113. (Previously Presented) The polymer composition of claim 112 wherein the bioactive agent is silver oxide.

114. (Previously Presented) The polymer composition of claim 112 wherein the carboxylic acid-containing organic polymer comprises a copolymer of sodium acrylate and acrylic acid.

115. (Previously Presented) A medical article comprising the polymer composition of claim
112.

116. (Previously Presented) A polymer composition comprising:
a continuous hydrophobic phase comprising a mixture comprising:
mineral oil; and
a hydrophobic thermoplastic elastomeric polymer selected from the group
consisting of styrene-isoprene-styrene (SIS), styrene-butadiene-styrene (SBS), styrene-
ethylene-propylene-styrene (SEPS), styrene-ethylene-butylene-styrene (SEBS), and
combinations thereof;
absorbent hydrophilic microparticles dispersed within the mineral oil, wherein the
hydrophilic microparticles comprise a crosslinked a copolymer of sodium acrylate and acrylic
acid; and
silver oxide having a particle size less than one micron dispersed in the hydrophilic
microparticles;
wherein the polymer composition is nonadherent and contains less than 1 wt% water
based on the total weight of the composition.

117. (Previously Presented) A medical article comprising the polymer composition of claim
112.